Concerning MB Docket No. 04-233, I have concerns about the expansion of Low Power FM (LPFM) as a listener and as an electrical engineer.

As a listener in the minority in LDS (Mormon)-dominated Utah, I've come to rely on externally-produced, locally-rebroadcast services for some diversity. I understand that the docket under consideration would favor LPFM stations over translators, and I believe that approach would reduce the variety and quality of programming in this area. We are in a valley separated from the metro areas (Salt Lake City, Ogden) by the Wasatch mountains so we rely on translators and a few well-placed metro transmitters. The local stations are somewhat limited in scope, and with 75% of the local population being LDS, I doubt that LPFM stations would improve the situation. The service provided by the K-LOVE radio network is invaluable in this state for providing choice and diversity.

I also enjoy the wide-area coverage of K-LOVE stations when I travel since they provide some welcome continuity and familiar programming in unfamiliar places. LPFM stations are of limited use to travellers since we don't know where to tune to find programming of interest and reception doesn't last when we are on the move.

As an engineer, I am not convinced that LPFM is a good use of the FM broadcast band. The capture effect causes strong FM stations to overpower weaker stations, and the poor dynamic range of most FM receivers I use (even rather expensive ones that should perform better) cause strong FM stations to dominate weaker stations due to front-end overloading. I experience these problems daily when trying to listen to distant transmitters such as the K-LOVE Ogden station or the Salt Lake KBZN jazz station; when I approach the Utah State University campus, the campus NPR station overwhelms my radio's front end and my preferred music is lost in intermodulation from the interminable NPR chit-chat. Thus it seems to me adding more low-power stations to a band dominated by strong transmitters will simply add to the frustration of FM listening: I will only be able to get good reception of LPFM stations in a limited area, and if I am listening to another station I will experience more interference when I drive past the LPFM transmitter, which I assume will be located in populated areas. At least most of the translators and other transmitters (with the exception of the annoying campus station) are in outlying areas and do not saturate my radio; a neighborhood LPFM transmitter would almost certainly be more of an annoyance than an asset.

In summary, my points are:
- Translators such as those used by the K-LOVE radio network are invaluable for providing diverse programming in Utah; replacing them with LPFM stations would most likely reduce diversity given the dominance of LDS culture in this region.
- Translators provide convenience and better service for travellers in a region, and national services like K-LOVE extend the convenience for long-distance travellers.
- Given the nature of FM demodulation and the rather poor performance of many FM receivers, I believe that adding LPFM transmitters to the mix of powerful FM transmitters will only add to interference and reception problems for the majority of FM listeners.

I would like to suggest that the FCC consider establishing a separate band for local, short-range broadcasters, possibly using disused UHF TV channels. Opening up such bandwidth, particularly with an emphasis on new digital techniques, would allow for innovation and new service

opportunities, possibly in the context of the "cognitive radio" research. This approach would be far more exciting and could provide long-term benefits that will not come from trying to wedge more LPFM providers into the crowded FM broadcast band.

Thank you,

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